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## CHANGES IN NAMES OF AMERICAN FISHES

A recent survey of the names applied to the genera of fishes shows the necessity of a number of changes from the names adopted by Jordan and Evermann, *Fishes of North and Middle America*, 1898. Among those which most concern students of American Ichthyology are the following:

*Anchoviella* Fowler replaces *Stolephorus* Lacepède as the name of the great body of tropical anchovies. The type of *Stolephorus*, as first restricted, was not an anchovy, but a round herring of Japan.

*Bagre* Cuvier, by tautonomy, replaces *Felichthys* and *Ailurichthys* for the Gaff top-sail cat-fish, *Bagre felis* (L.)

*Bodianus* Bloch, by tautonomy, replaces *Harpe* Lacepède, while *Cephalopholis* Bloch & Schneider replaces *Bodianus* and *Enneacentrus*.

*Chelon* Röse replaces *Chænomugil*.

*Corvina* Cuvier stands for the group called *Pseudosciaena*. *Cheilotrema* and *Callaus* may be genera distinct from *Corvina*.

*Clupanodon* Lacepède should be restricted to the Asiatic genus called *Konosirus*. The true sardines (*S. pilchardus* of Europe, and *S. caerulea* of California), belong to the genus *Sardina* Antapa. Those sardines with unstriated opercle, (*S. aurita* and *S. anchovia-pseudohispanica*), comprise the genus *Sardinella*, called *Sardinia* by Poey. The Scaled Sar-

dines, *maculosa*, *macrophthalmia*, etc., constitute the genus *Harengula*, well separated from *Sardina* and *Sardinella* by their firm flesh and adherent scales.

The type of *Etheostoma* should be *E. blennioides*. The name should replace *Diplesion*, while the genus called *Etheostoma* by Jordan and Evermann should stand as *Poecilichthys*. Some of the subgenera in this group should stand as distinct genera.

The genus called *Centrarchus* should stand as *Eucentrarchus* Gill and the family of Sun-fishes and Black Bass, as Micropteridae.

The name *Gerres* Cuvier should replace *Xystema*, while the genus called *Gerres* by Jordan and Evermann becomes *Diapterus*. The family stands as Eucinostomidae as there is an earlier family Gerriidae, among insects.

*Histrio* Fischer replaces *Pterophryne*.

*Leucichthys* Dybowski replaces *Argyrosomus* (preoccupied) for the Lake Herrings and Ciscoes. Several new species of these have been described by Jordan and Evermann, from the Great Lakes.

The Trout Perch of the Lakes should stand as *Percopsis omiscomaycus* Walbaum, instead of *Percopsis guttatus*. The Lake Sturgeon as *Acipenser fulvescens* Rafinesque, instead of *Acipenser rubicundus* Le Sueur as Mr. Hubbs has noted. The American eel is *Anguilla rostrata* (Le Sueur, Sept., 1817), instead of *A. chrisypa* Rafinesque (Dec., 1817). The date of *rostrata* is incorrectly given by Jordan & Evermann.

*Membras* Bonaparte replaces *Kirtlandia*.

*Micrometrus* Gibbons replaces *Abeona*.

*Phycis* Röse replaces *Emphycus* and *Urophycis*.

*Polyneumus* L. replaces *Polydactylus*.

The generic name *Catulus* is preoccupied in insects. The genus of sharks so named becomes *Scylliorhinus*.

*Siphostoma* Rafinesque becomes again *Syngnathus*, and *Lucius* Rafinesque reverts to *Esox*, while

*Esox* Rafinesque becomes again *Belone* Cuvier. *Glossamia pandionis* becomes *Xystramia pandionis*.

There are no species of *Leucos* in America, the species so-called being referable to *Myloleucus* Cope and *Hesperoleucus* Snyder. There are, according to Prof. Cockerell, no true species of *Leuciscus* in America or Japan. The American species, so-called, stand for the present as *Richardsonius* Gerard, though some of the included sections (*Clinostomus*, *Phoxinus*, *Hemitremia*, *Siboma*), may prove to be of generic value. *Cheilonemus* Baird replaces *Leucosomus*, preoccupied. *Cremnobates* Günther replaces *Auchenopterus*, preoccupied. *Cynicoglossus* Bonaparte replaces *Microstomus*, preoccupied. *Eudulus* Fowler replaces *Dules*. *Evermannellus* Fowler replaces *Odontostomus*. *Haloporphyrus* Günther replaces *Lepidion*. *Notoscopelus* Günther replaces *Macrostoma*. *Quassilabia* Jordan and Brayton replaces *Lagochilus*. *Scaphirhynchops* Gill replaces *Scaphirhynchus*. *Stenesthes* Jordan replaces *Stenotomus*, preoccupied. The Scup becomes thus *Stenesthes chrysops*. *Xiphister* Jordan and Gilbert replaces *Xiphidion*.

*Carcharhinus commersoni* Blainville should probably stand, instead of *C. lamia*. *Isurus tigris* (Atwood) replaces *Isurus dekayi*, *Isurus oxyrinchus* European species not yet known from our coast. *Lamna nasus* (Bonnaterre), has priority over *Lamna cornubica* (Gmelin). *Mustelus* Valmont, 1764, or of Linck (1790), must stand for the smooth "Dog Sharks," which may for the present, pending investigation be left in one genus. *Mustelus* Valmont is equivalent to *Cynias* Gill, *Mustelus* Linck to *Pleuracromylon*. The species are *Mustelus asterias* (Valmont) or *Cynias canis* (Mitchill) and *Mustelus* or *Pleuracromylon mustelus* (L.)

The name *Raja diaphanes* Mitchill replaces *Raja ocellata* (preoccupied) *Raja scabrata* Garman replaces *Raja radiata* (not found in America) and

*Raja stabuliformis* Garman replaces *Raja laevis*, regarded as preoccupied. *Raja granulata* Gill is a valid species.

The name *Mobula* replaces *Aodon*, unidentifiable.

The group of suckers called *Hypentelium* constitutes a valid genus. The species of this group called *Catostomus rhothæcus* by Dr. Thoburn seems to constitute a new genus, which we may name *Thoburnia* Jordan and Snyder, in honor of Wilbur Thoburn, professor of bionomics in Stanford University, a young man whose life came to an untimely end and who is remembered by his students not only as a gifted naturalist, but as a powerful moral influence in the lives of all associated with him. *Thoburnia* is distinguishable from *Hypentelium* by the very small head, the skull not concave between the eyes.

*Xyrauchen texanus* (Abbott) replaces *X. cypho*.

Among the Hexagrammos-like fishes, several distinct families must be recognized each with but a genus or two. These are Anoplopomatidae, Erilepididae, Hexagrammidae, Ophiodontidae, Zaniolepididae and Oxylebiidae. *Erilepis zonifer* grows to a large size, upwards of a hundred pounds in Japan and in Alaska, where it is occasionally taken. The black bars disappear with age. The "Fat Priest" of Japan, *Ebisus sagamius* Jordan and Snyder, is the adult of this species, of which the young was called *Erilepis zonifer*. *Zaniolepis frenatus* Eigenmann is generically different from *Zaniolepis latipinnis*, having the head much larger and more strongly armed, the supraorbital cirrus large, and the second dorsal spine not specially elevated, shorter than the second and shorter than head. This species may be made the type of a new genus, *Xantocles*. *Zaniolepis* from *xanion*, a wool card or comb and *lepis* scale, should have been spelled with an initial X.

Under the ruling of the International Commission of Zoological Nomenclature, the generic names

of Gronow (1763), with polynomial species have been accepted. This ruling would also apparently validate the generic names revived from Klein in the dictionary called the "Gesellschaft Schauplatz," 1775-1781. Certain names of Valmont de Bomare, 1768, may be eligible and certain subgeneric names in Arabic of Forskål, 1775. If these should be adopted *Amia* Gronow would replace *Apogon*. *Amiatus* Rafinesque would replace *Amia* L. (1766). *Brama* Klein would replace *Abramis* and *Lepodus* Rafinesque *Brama* Schneider for the Sea Bream. *Callyodon* Gronow would replace *Scarus*. *Cestracion* Klein replaces *Sphyrna*. *Galeus* Valmont or *Cynocephalus* Klein replaces *Prionace*. *Cyclogaster* Gronow replaces *Liparis*. *Enchelyopus* Gronow, *Zoarces*. *Hepatus* Gronow, replaces *Teuthis* L. *Dasybatus* Klein replaces *Dasyatis*. *Rhina* Klein supersedes *Squatina*. *Rhombus* Klein replaces *Bothus*, while *Peprilus* Cuvier, replaces *Rhombus* Lacepède for the genus of Harvest-fishes. *Poronotus* and *Palometa* are probably both distinct from *Rhombus*.

The Thresher Shark (*Alopias vulpinus* Bonnatere, *A. vulpes* Gmelin), was named *Vulpecula marina* by Valmont in 1768. Garman adopts this name but it may not be officially considered eligible.

It is possible that these generic names may not be finally accepted, and it will be safe not to use any of them not validated by acceptance of later authors, until their eligibility is finally determined. The authors concerned are mainly Gronow, Klein, Valmont de Bomare and Patrick Browne.

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### HUNTING LIZARDS WITH A "BEAN-SHOOTER."

The writer has before him a shipment of reptiles from the West, including a really choice lot of

lizards—nearly every one of them captured by means of a beanshooter. The recollection evokes a gleeful chuckle. It seems worth telling.

Freely admitting considerable experience with this boy's weapon in days gone by, credit for its resurrection and practical adoption must be given to my friend, Mr. William T. Davis, the naturalist of Staten Island. At one of the entomological meetings he exhibited his beanshooter together with charges of fine shot. He then told of how he had laid low the dazzling dragon-fly as it sailed over the pond and had brought abruptly to an end the noisome song of the Cicada in branches high. It was a thrilling account—full of the element of sport.

On a trip to southern Utah this summer my equipment included a beanshooter, also a supply of No. 4 and 8 shot. The beanshooter was made the same as I used as a boy: a stout, forked handle cut from a privet hedge, two rubber bands 5" long x  $\frac{5}{8}$ " wide, a soft, square piece of leather, folded, trimmed and sewed at the bottom so that it formed a shallow, rounded pocket, and the whole tied together with shoestring. In execution this weapon proved so effective that I employed it to the exclusion of all other methods whenever the chances of capturing a specimen by hand seemed in doubt. My procedure would be as follows: loading the flipper with 30 to 40 of No. 8 shot or with 20 to 30 of No. 4, according to size of the lizard in sight, I approached with caution, avoiding dry sticks and loose stones, and, when within 10 to 15 feet, I would shoot, always aiming at the head. The shot produced temporary stunning, sometimes accompanied by a slight flow of blood, but rarely by mutilation. No time could be lost in picking up specimens for they often revived before they could be placed in a bag. At 10 feet I felt almost sure of my game; at 15 feet I could count on bagging 4 out of 5.

Except when the lizards were startled, I found little difficulty in getting within shooting distance of even the speediest of them. This I ascribe to their bump of curiosity, developed apparently to a high degree. Thus, on another occasion, I recall capturing with a net a number of *Crotaphytus* while their attention was fixed upon the antics—a sort of war dance—performed by a companion. The material before me is represented largely by species of *Callisaurus*, *Crotaphytus*, *Uta*, *Sceloporus*, *Cnemidophorus*, etc.

The small bore shotgun or pistol, while a reliable weapon, has the disadvantage of causing more or less mutilation. In a hot and dry climate badly injured or dead specimens discolor and shrivel quickly, often before they can be brought to camp. Best suited for every purpose of study is material brought in alive. If they are not intended for osteological preparations I have obtained the most satisfactory results from specimens killed in formalin 4%. In this medium reptiles retain their natural proportion and color much better than if placed into alcohol at once. I make no incisions, but instead use a small veterinary syringe with a set of hypodermic needles. This leaves no outward marks where injections have been made. An injection through the vent usually suffices for lizards. Snakes require additional injections below the ventral scales. Collapsed regions are easily restored by means of the syringe during the process of curing. After 3 to 4 hours specimens may be transferred to alcohol 70% or, if intended for color study at a future date, to formalin 2%.

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## HABITS OF A YOUNG BOX TORTOISE.

The Box Tortoise (*Terrapene carolina*), is almost entirely terrestrial in its habits, although exceptions have been recorded recently by contributors to



COPEIA. As the young of this species are rarely discovered, the actions of one found by the writer have been watched with interest. This turtle was picked up on a sandy country road in June. It had a carapace length of 50 mm. and weighed  $\frac{3}{4}$  oz. Portions of the keel were distinctly present. When placed in its box, it at once made for the water where it remains almost continually, coming out for an hour or two on bright, hot mornings, to sun itself on some moss. Its favorite diet consists of angle worms, which it devours with avidity, but unlike other Emydidae it rushes out of the water with its prey instead of feeding in the water with head submerged. In this habit it resembles the true land tortoises, toward which the Box Tortoises seem to be evolving. The aquatic life of young Box Tortoises may account for their being so infrequently observed.

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#### ANOTHER NEW JERSEY KING SNAKE.

This spring, about June 10th, upon rather a damp windy day, Mr. Outram Bangs and I motored from Rumson to Lakehurst, New Jersey. During a short halt made necessary by a punctured tire we strolled for some distance along a brook which divided a large open meadow. We had gone but a short way when we found a fine adult King Snake [*Lampropeltis getulus* (L.)] sunning on the south side of a large log. The snake is still alive at the Museum of Comparative Zoology at Cambridge. Since Fowler does not record any specimen from just this locality, and as the species is very rare in New Jersey, it seems worth while to place this captive upon record.

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